Course title	Former Course number	Section number
GIS Lite	GIS 101	NA

Location or Remote	Meeting Time/Day	Room Number	Meeting Dates

Instructor: Conrad Stanley

Contact information

Office hours:
Mon-Sat
Call for appointment

Office phone: (970) 675 -- 8664
E-mail: constanley@juno.com
Remote through "Breeze" by appointment

Description:
An introduction to digital mapping and recreation grade GPS. Course teaches concepts geared to those individuals new to digital mapping (perhaps mapping in general) and to basic GPS.

Prerequisites:
None

Remote attendees:
ALL: It is strongly suggested that all learners attending remotely contact the instructor via e-mail and/or phone. The e-mail should include the student's full name, a telephone number that they can be reached at, and the e-mail account they will be using.

Fully and totally isolated (individual) learners --
All isolated learners must meet the following hardware/software requirements:

- 1.8 GHz processor/512 MB RAM
- 40 plus gigabyte hard drive
- NIC and Internet connectivity (768k+ recommended for video streaming)
- DVD -- R/CD -- RW
- soundcard
- administrator status for loading programs, software, and plug-ins.

The benefits of participating in "real-time" instruction cannot be overstated, and so it is required that students attend live lecture sessions. All fully isolated students are subject to these additional time and travel demands unless auditing the course:

- travel for quarterly tests proctored at an approved location such as a satellite campus library or other impartial entity- 4 days. Students must provide the contact information for the proctor to the GIS-instructor at least 2 days prior to testing.
- Students must purchase a compatible GPS unit for use in the course.
- Student will receive a service packet containing datasets, utilities, FTP and "Breeze" access instructions, etc.

It is the student's responsibility to make these arrangements and forward the contact information to the course instructor.

Modus operandi :
Communication in a conference environment is not intuitive for most students or instructors. Because of the many different types of students and the different classroom configurations, certain communication protocols should be observed.

- Off-site students should ascertain whether they have the most recent lecture, i.e. -- PowerPoint, and assignment, i.e. –A#, along with any related data sets that they will need for class. FTP transfers should be completed at least one hour before class.
- The FTP portal to CNCC -- GIS will close, except for special occasions, during class time so as to conserve bandwidth for the broadcast.
- Please try to arrive between five and 10 minutes early so that there will not be mass confusion at login.
- Do not download files, music, or check e-mail during class times.
- Generally, the first five to 10 minutes of class will be an open forum for asking questions and resolving issues.
- Typically after the open forum there will be a pop quiz. Remote lab attendees or isolated students should FTP their answers into the class drop folder immediately after the quiz.
- During lecture, please leave your mic-lock OFF. If you need to get my attention to ask a question, type into the chat window, "question". You may key the mic and ask to stop also, but I'm not sure how this will in fact affect the integrity of the broadcast.
- After lecture, I suggest leaving the microphone off and keying it to ask questions. If a dialog needs to transpire, then lock it on.

Communicating in a conference type environment is difficult at best and I hope that these few suggestions will keep class orderly and allow for everyone to benefit.

Objectives/core topics:

- describe the history of maps including the impetus for planar systems, such as a need for a stable, mobile reference frame.
- Define and give examples of the various uses for maps including navigation, geographic holdings, record keeping, and analyses.
- Describe the evolving construction techniques used to build maps, especially electronically.
- Discuss essential map components such as projection, scale, and annotation, contrasting the various compromises that must be made in planar systems.
- Describe modern GIS systems based upon iterative and formula -- based processes. A discussion of current technologies as products of legacy computing techniques, such as a shift from mainframe computing to cloud computing or from local to network data storage will be required.
- Describe and diagram hardware architecture, operating system fundamentals, and the various GIS software applications available including open source. Utilize current technologies such as Bluetooth or thumb- drives to digitally submit assignments.
- Demonstrate essential GIS operations such as overlay, data acquisition, symbolization, and conversion using Google Earth and/or ArcMap technologies.
- Utilize remotely sensed KML or text data to visualize features in Google Earth.

- Create in Google Earth features that will be uploaded to handheld, recreation grade GPS units for navigation and/or other feature delineation on the ground.

Required* and/or suggested materials:**
texts: (1 optional)
"GIS Fundamentals" 3rd ed. Bolstad (used in all later GIS courses at CNCC)
email account
miscellaneous:
USB Mass storage device ***
three ring binder suggested for handouts
Spiral notebook, writing utensils, etc..***
Service packet – sent to you

Grading criteria:
Grades will be based upon quizzes, tests, assignments, and projects. Typical point values are:

Component	Value	Weight
Homework/short assignments	10< X < 40 points	30%
Quizzes	3 -- 10 points	10%
Tests	100 points	30%
Projects	50 -- 100 (each)	30%

Your grade is based upon the percentage of total points. Grading scale categories:
>= 90 A
80 - < 90 B
70 - < 80 C
60 - < 70 D
< 60 F

- Quizzes are unannounced and expect two assignments per week. Tests and practicum assessments are based upon blocks of similar material and will be announced no less than one week in advance. These must be proctored!! Every assignment may not be explicitly checked by the instructor. If you're having difficulties seek assistance during office hours.
- Re: electronic submissions

Traditional and lab groups:

Backup all of your work to your personal folder lest it be erased or altered.
All homework and data are to be submitted digitally through a one-way drop process described later. Data are to be dropped at path:
XXXXXXXXXXXXXX"
Name the file using the following convention: "first name and last name initials_assignment initials". EG- Conrad_S_HW11. You cannot retrieve dropped files!!
Do not use punctuation or leave spaces in filenames or folder names.

Fully and totally isolated learners:

You will receive explicit instructions for submitting work via FTP at:
XXXXXXXXXXXXXXX

- You are responsible for your own work. Cheating and plagiarism can result in dismissal from class and a grade of "F." for the course. Quizzes cannot be made up. Tests given during an unexcused absence must be made up before the next test and will incur a penalty of 10% per day. This policy applies to due- assignments also. Assignments due during excused absence are allowed to be submitted after you return. The submission period is based upon the number of days absent. A doctor's excuse will be required to submit work after three consecutive absences. In no event will assignments, tests, or projects be accepted after the next unit test.